



MATHEMATICS
SEVENTH GRADE

Qtr- Week	Benchmark/ Indicator	Lesson Makeup	Assessment	Materials/ Technology
1 st 1		Pre-Test		
1 st 2	<p>Number, Number Sense and Operations: Represent and compare numbers less than 0 through familiar applications and extending the number line.</p>	<p>Adding and subtracting whole numbers Estimating sums and differences Multiplying and dividing whole numbers</p> <p>Have students write their vertical multiplication problem on a large grid, one digit per grid square, to help them keep their computations and regrouping in proper alignment.</p> <p>How many people live in your town? How many people live in a nearby town? Record your data in a place-value chart. Which has a greater population? Add to find the total population. Then round your answer. Use a map to report your findings in class.</p>	<p>Puzzle pages Visual Aides Place value games Flash Cards- addition, subtraction, multiplication, division</p> <p>Quiz</p> <p>Board Work: Have each student go to the board and demonstrate and articulate knowledge with a given problem. Continue throughout the year.</p> <p>Vocabulary: <i>Digit, place value, addend, sum difference, factor, product, base, power, divisor, dividend, quotient, remainder, polygon, perimeter</i></p>	<p>A+ Grade 7 Math: Properties/ include various worksheets from computer-based activities</p> <p>5x's each on given Multiplication and Division number/ continue for the duration of the year until the student has mastered facts to twelve One minute test every Friday</p>



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1 st 3	<p>Number, Number Sense and Operations: Represent and compare numbers less than 0 through familiar applications and extending the number line.</p>	<p>Estimating products and quotients Arithmetic and algebra Representing numbers using letters Replacing variables Review use of calculator</p> <p>The sports pages of most newspapers provide an abundant supply of scores that students can use to create equations and expressions. Students can pose questions such as “How many runs did the National League and the American League score in one day?” Students can work in small groups to generate sentences such as “NL Runs + AL Runs = Total runs per day.” Have students replace one of the values in their sentence with a variable and challenge another group to solve the resulting equation.</p>	<p>Ability to classify expressions as algebraic or numeric and identify variables</p> <p>Evaluate expressions using a calculator</p> <p>Quiz</p> <p>Vocabulary: <i>Estimate, variable, variable expression, terms, constant, coefficient, like terms, simplify a variable expression, combine like terms, substitute, evaluate a variable expression, volume</i></p>	<p>A+ Grade 7 Math: <i>Expression and equations</i></p>
1 st 4	<p>Number, Number Sense and Operations: Use order of operations including use of</p>	<p>Order of operations- explore different calculators Evaluating algebraic expressions Equations- Solution by substitution Solving addition equation equations</p>	<p>Develop various real life scenarios introducing algebraic reasoning</p> <p>Quiz</p>	<p>Scientific and non-scientific calculators</p> <p>A+ Grade 7 Math: <i>Order of operations,</i></p>



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	<p>parenthesis and exponents to solve multi-step problems, and verify and interpret the results</p>	<p>Sometimes it is easier to remember rules by remembering certain phrases. To help students remember the rules for order of operations, have them remember “Please excuse my dear Aunt Sally.” The <i>p</i> from <i>please</i> stands for “simplify the parentheses.” The <i>e</i> from <i>excuse</i> stands for “evaluating the exponents or powers.” The <i>m</i> from <i>my</i> and the <i>d</i> from <i>dear</i> stand for “doing multiplication and division from left to right.” And the <i>a</i> from <i>Aunt</i> and <i>s</i> from <i>Sally</i> stand for “doing addition and subtraction from left to right.”</p>	<p>Vocabulary: <i>Number expression, parenthesis, simplify, equivalent, number equation, property, commutative, associative, identity, zero, distributive, division properties, area</i></p> <p>Write the following phrases on the chalkboard and have students use them to write word problems involving multiplication and division. Have partners exchange problems and then write the appropriate equation to solve.</p> <p><i>multiplied by</i></p> <p><i>same amount</i></p> <p><i>twice as often</i></p> <p><i>half as many</i></p>	<p><i>Distributive property, properties, number operations, like terms</i></p>
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			<p><i>cost the same amount</i></p> <p><i>separated into equal groups</i></p> <p><i>fives times as much</i></p> <p><i>shared equally</i></p> <p><i>same amount each week</i></p> <p><i>earns the same amount</i></p> <p><i>cost per item</i></p> <p><i>divided by</i></p> <p><i>equal amount</i></p> <p><i>gave each friend the same number</i></p>	
1 st 5	<p>Number, Number Sense and Operations: Compare, order and covert among fractions, decimals and percents</p>	<p>Using formulas Review Decimals and place value Comparing and rounding decimals</p> <p>Use place-value charts to help students line up the digits, not only when they are comparing</p>	<p>Place value chart</p> <p>Quiz</p> <p>Vocabulary: <i>Decimal, decimal point, scientific notation</i></p>	<p>A+ Grade 7 Math: <i>Decimal number concept</i></p>



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		and ordering decimal numbers, but also when they are adding and subtracting decimals. Make a sheet of charts with spaces for thousands through hundredths and a special space for decimal points.		
1 st 6	Number, Number Sense and Operations: Compare, order and covert among fractions, decimals and percents	<p>Adding and subtracting decimals- calculator Multiplying decimals by powers of ten Multiplying decimals- decimal point placement Dividing decimals by powers of ten Dividing decimals</p> <p>On the chalkboard, have a student highlight the decimal places in the factors of a multiplication exercise, as in the example below. Have another student place the decimal point and highlight the decimal places in the product. Some students may need to be reminded to count digits to the right of decimal points when they count decimal places.</p>	<p>Demonstrate accuracy on calculator and on paper</p> <p>Show understanding of simulated checkbook (paper) and computer-checkbook program</p> <p>Vocabulary: <i>Decimal, decimal point, scientific notation</i></p>	A+ Grade 7 Math: <i>Decimal Number Concepts, Decimal Number operations</i>
1 st 7	Number, Number Sense and Operations: Compare, order and covert among fractions, decimals and percents	<p>Decimals and fractions Repeating decimals Renaming percents to decimals Evaluating expressions with decimals</p> <p>Many students have difficulty aligning digits, especially when finding the quotient in a</p>	<p>Vocabulary: <i>Decimal, decimal point, scientific notation</i></p> <p>A good activity for reinforcing the relationships between fractions, percents,</p>	A+ Grade 7 Math: <i>Decimal Number Operations, Problem solving 2</i>



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		division exercise. Have students complete some exercises by using graph paper, placing each digit in a square. This method will help them keep everything aligned appropriately.	and decimals is to have students complete an equivalency chart. This chart could include common fractions and percents. A four-column chart that provides space for a 10-by-10 grid picture will help students visualize the meaning and size of the numbers. Students can keep the chart in their notebooks for future reference.	
1 st 8	Number, Number Sense and Operations: Apply and explain the use of prime factorizations, common factors, and common multiples in problem situations	Divisibility rules Prime and composite numbers Greatest common divisor using variables Factoring Knowing rules for divisibility by 2, 3, 4, 5, 9, and 10 can be very helpful in finding the prime factorization of numbers. Also, create an understanding for divisibility rules 6, 7, 8, etc.	Completion of classroom charts Vocabulary: <i>factors, divisible, common factor, greatest common factor</i>	A+ Grade 7 Math: <i>Exponents and Factors, Fraction concepts</i>
1 st 9	Number, Number Sense and Operations: Apply	Least common multiple Scientific notation-why & how Making conjectures	Use scientific notation to describe the differences in planets' orbits	A+ Grade 7 Math: <i>Fraction concepts</i>



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	and explain the use of prime factorizations, common factors, and common multiples in problem situations	Demonstrate ability to find LCM and GCD when there are variables involved. Using the two abbreviations correctly	Vocabulary: <i>factors, divisible, common factor, greatest common factor, multiple, common multiple, least common multiple, prime number, composite number, prime factorization</i>	
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2nd 1	Number, Number Sense and Operations: Use simple expressions involving integers to represent and solve problems	Review Proper fractions Improper fractions Mixed numbers Equivalent fractions Guided Practice/ display an understanding through visual aides e.g. pizza party Working with fractions can be difficult for students, because they may have a hard time relating their understanding of operations with whole numbers to operations with fractions. Students have learned that addition can be thought of as joining two or more groups, or sets, to form a new set. They have also learned to add units of like quantities, such as tens to tens, ones to ones, and so on. Addition of fractions should be an extension of these concepts. So, when students are trying to add $\frac{1}{3}$ and $\frac{1}{4}$, they will learn that they need to add “like” quantities. To do this, they learn that they need to rewrite the fractions with common denominators or “parts equal in size” when adding or subtracting fractions. Note in the diagram below that $\frac{1}{3} = \frac{4}{12}$ and $\frac{1}{4} = \frac{3}{12}$. So we can add the number	Vocabulary: <i>Fraction, numerator, denominator, proper fraction, improper fraction, mixed number, equivalent fraction</i>	A+ Grade 7 Math: <i>Like terms, Fraction concepts</i>



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		<p>of twelfths, $\frac{4}{12} + \frac{3}{12}$, and get $\frac{7}{12}$.</p> <p>The diagram consists of three rows of fraction strips. The first row shows a strip labeled $\frac{1}{3}$ divided into three equal parts, each labeled $\frac{1}{12}$. The second row shows a strip labeled $\frac{1}{4}$ divided into three equal parts, each labeled $\frac{1}{12}$. The third row shows a single strip labeled $\frac{1}{12}$.</p>		
2nd 2		<p>Fractions in simplest form Comparing and ordering-calculator assistance Like and unlike denominators</p> <p>Materials: fraction strips with halves, thirds, fourths, sixths, and twelfths</p> <p>Students should recognize that $\frac{5}{9}$ means a unit has been divided into 9 equal parts and there are five $\frac{1}{9}$ parts. That is, the denominator of a fraction tells you the size of the parts you have and the numerator tells you how many of those equal parts you have. Students should also know that addition can be modeled as the joining of sets and that subtraction can be modeled as the taking away of sets.</p>	<p>Vocabulary: <i>Fraction, numerator, denominator, proper fraction, improper fraction, mixed number, equivalent fraction, lowest terms fraction, like fraction, unlike fraction</i></p>	<p>A+ Grade 7 Math: <i>Like terms, problem solving</i></p>



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2nd 3	Number, Number Sense and Operations: Represent addition and subtraction situations involving fractions and decimals with models and visual representations	<p>Adding fractions and Subtracting fractions with regrouping</p> <p>Have your students estimate the answer before performing an operation with two fractions. For example, students might estimate that the sum of $\frac{1}{3} + \frac{1}{4}$ is less than one and greater than $\frac{1}{2}$, since $\frac{1}{3} > \frac{1}{4}$ and $\frac{1}{4} + \frac{1}{4} = \frac{1}{2}$. Similarly, the product of $(2\frac{1}{3}) \times (1\frac{1}{2})$ is close to 4, since both numbers are close to 2. The quotient of $\frac{3}{5} \div \frac{1}{4}$ is greater than 2, since $\frac{3}{5} > \frac{1}{2}$ and there are 2 fourths in $\frac{1}{2}$.</p>	<p>Vocabulary: <i>Common denominator, least common denominator</i></p>	A+ Grade 7 Math: <i>Fraction Concepts, Problem solving 1</i>
2nd 4	Number, Number Sense and Operations: Represent multiplication and division situations involving fractions and decimals with models and visual representations	<p>Multiplying fractions and mixed numbers Dividing fractions and mixed numbers Mean Median, Mode, Range, Minimum, Maximum</p> <p>Help students understand the power of an outlier by looking at how the mean changes as the high or low numbers in a data set move further from the mean of the other numbers in the set. (This example would be simple to program into a spreadsheet.)</p>	<p>Using hands-on materials, demonstrate fractions of whole numbers Using graph paper, illustrate multiplication of two fractions</p> <p>Create and use fraction strips</p> <p>Vocabulary: <i>Reciprocal of a fraction, minimum, maximum, range, mean, median, mode, average</i></p>	A+ Grade 7 Math: <i>Fraction Operations, problem solving 2</i>



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	Data Analysis and Probability: Understand the different information provided by measures of center and measures of spread			
2nd 5		<p>Solving subtraction equations Complex fractions Using calculators to solve and check fraction problems Simplifying by addition Simplifying by subtraction</p> <p>When using reciprocals to divide fractions, students often forget which fraction to invert. Emphasize that the divisor (the second fraction in the expression) is always inverted</p>	<p>Lots of pencil and paper practice, using the calculator as an aid</p> <p>Vocabulary: <i>Reciprocal of a fraction</i></p>	<p>A+ Grade 7 Math: <i>Problem solving 3</i></p> <p>Calculator</p>
2nd 6		<p>Multiplying rational expressions Converting measurements Chapter review</p> <p>Use familiar referents for standard units so that students will be able to estimate length, weight, and</p>	<p>Recipe conversion/ Each student create a recipe and eat!</p> <p>You may wish to challenge the class by showing the</p>	<p>A+ Grade 7 Math: <i>Algebra Concepts, Expressions and Equations, Problem solving 6</i></p>



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		capacity. For example, a baseball bat is about 1 meter in length and 1 kilogram in mass. Your pinkie finger is about 1 centimeter wide. A dime is about 1 millimeter thick. A football weighs about 1 pound, and a large paper clip or thumbtack has a mass of about 1 gram. Have students measure the length or width of their hands in centimeters and inches to help them estimate linear measurements.	students a diagram like the one below. Explain that each unit in the metric system is 10 times the size of the unit to its right. When converting a larger unit to a smaller unit, multiply. Note that the tables include hectometers (hm) and decameters (dam)	
2nd 7	Number, Number Sense and Operations: Develop meaning for percents, including percents greater than 100 and less than 1	Ratios Proportions Ratios and proportions Percents and fractions Percents and decimals An out-of-class activity that is often very helpful to students has them go to the store with their parents and list the prices for 10 or more products. Students then solve a proportion to find the unit price of each product.	Solving word problems using these skills Vocabulary: <i>Ratio, proportion, percent, discount</i>	A+ Grade 7 Math: <i>Probability, Ratio and Proportion, problem solving 4</i> Ask a weather reporter from the media or a student studying meteorology to come to class to discuss how probability applies to predicting the weather.
2nd 8	Number, Number Sense and	Finding the percent of a number Finding the percent of increase or decrease Formulas and percents	“Going shopping” activity/ Field Trip to the mall	A+ Grade 7 Math: <i>Percent Concepts, Problem solving 5,</i>



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	Operations: Develop meaning for percents, including percents greater than 100 and less than 1	Calculating taxes Unit review Possible description: The number of students participating in after-school sports increased from September through November and decreased from November through December.	Vocabulary: <i>Ratio, proportion, percent, discount, percent increase, percent decrease</i>	
2nd 9		Mid-year review	Mid-year exam	



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3rd 1	<p>Number, Number Sense and Operations: Use a variety of strategies, including proportional reasoning, to estimate, compute solve and explain solutions to problems involving integers, fractions, decimals and percents</p> <p>Mathematical Processes: Use models and pictures to relate concepts of ratio, proportion and percent</p>	<p>The real number line and integers Absolute value Comparing integers- greater than and less than Even and odd integers Adding positive integers</p> <p>Like many ideas in mathematics that are abstract or symbolic, it often helps students to have a visual model to help them conceptualize the idea. A number line is a great choice for this topic.</p>	<p>Illustrate concepts on a number line</p> <p>Vocabulary: <i>Integers, positive integers, negative integers, opposites, absolute value, number scale, altitudes, Fahrenheit, Celsius</i></p>	<p>Practice OATs now through April as needed.</p> <p>A+ Grade 7 Math: <i>Integers, adding and subtracting Integers, Absolute value</i></p>
3rd 2	<p>Number, Number Sense and Operations: Use a</p>	<p>Adding negative integers Subtracting positive and negative integers Multiplying by positive integers</p>	<p>Flashcard game using positive, negative, and absolute value (yes, Around the World for</p>	<p>A+ Grade 7 Math: <i>Integers, adding and subtracting Integers,</i></p>



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	<p>variety of strategies, including proportional reasoning, to estimate, compute solve and explain solutions to problems involving integers, fractions, decimals and percents</p>	<p>Multiplying by negative integers Dividing by positive and negative integers</p> <p>Make use of ideas students already know, such as multiplication being repeated addition. This can help them realize that $3 \times (-3) = -9$, since $-3 + (-3) + (-3) = -9$</p> <p>Connect the fact that multiplication is commutative to help you justify $-3 \times 4 = -12$, since they already know that $4 \times (-3) = -12$.</p> <p>Give students a positive or negative number and ask them to give you two numbers whose sum, difference, product, or quotient is the given number. For example, given the number -8, it could be the product of -4 and 2.</p>	<p>seventh graders)</p> <p>Vocabulary: <i>Integers, positive integers, negative integers, opposites, absolute value, number scale, altitudes, Fahrenheit, Celsius</i></p>	<p><i>Multiplying and Dividing Integers</i></p>
3rd 3	<p>Number, Number Sense and Operations: Use order of operations including use of parenthesis and exponents to solve multi-step problems, and</p>	<p>Using positive and negative integers to compare elevations (talk to social studies teacher about what region they are studying) Exponents-using a calculator Multiplying and dividing with exponents Squares Cubes</p>	<p>Elevation map reading skills Draw and create problems using exponents Learn to draw a 3-D figure</p> <p>Vocabulary: <i>Integers, positive integers, negative integers, opposites, absolute value, number scale,</i></p>	<p>A+ Grade 7 Math: <i>Integers, adding and subtracting Integers, Multiplying and Dividing Integers, Plane Figures</i></p>



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	verify and interpret the results	Weather Project: Choose two places on a world map or globe that are in different hemispheres. Use the internet or newspaper to follow the weather in each location. Record the temperature in each location for a week. Graph the temperatures on a line graph. Find the average high and the average low temperature during the week. Report your findings to the class.	<i>altitudes, Fahrenheit, Celsius</i>	
3rd 4	Geometry and Spatial Sense: Describe and use properties of triangles to solve problems involving angle measures and side lengths and right triangles	Square Roots Irrational numbers and square roots Pythagorean theorem More about triangles Hands-on work with Pythagorean theorem Chart rational vs. irrational numbers	Vocabulary: <i>Triangle, Pythagorean theorem, rational number, irrational number, Square Root</i>	A+ Grade 7 Math: <i>Triangles</i>
3rd 5	Measurement: Convert units of length, area, volume, mass and time within the same measurement system	Chapter review Perimeters of polygons- regular and irregular Areas of rectangle and squares	Test Memorization and application of formulas	A+ Grade 7 Math: <i>Plane Figures, geometric Concepts</i>



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3rd 6	<p>Measurement: Use problem solving techniques and technology as needed to solve problems involving length, weight, perimeter, area, volume, time and temperature</p> <p>Measurement: Analyze and explain what happens to area and perimeter or surface area and volume when the dimensions of an object are changed</p>	<p>Areas of triangles Areas of trapezoids and parallelograms Areas of irregular polygons Volume</p> <p>Creative memory devices for remembering formulas Applying formulas to the appropriate shape</p>	<p>Quiz</p>	<p>A+ Grade 7 Math: <i>Geometric Concepts</i></p>
3rd 7	<p>Measurement: Select appropriate units to measure angles, circumference, surface area, mass and volume, using U.S. customary units; e.g., degrees, square feet, pounds,</p>	<p>Volumes of cylinders and spheres Finding room measurements Circumference and areas of circles Actual measurements vs. estimates</p> <p>The circle is the plane figure that maximizes the area it contains. Using a long piece of rope with the two ends tied together, have students form a long narrow rectangle on the floor and count the number of students</p>	<p>Problem-solving accuracy</p> <p>Vocabulary: <i>Center, radius, diameter, circumference, circle, clockwise. Counter-clockwise, cylinder, cone, cube</i></p>	<p>A+ Grade 7 Math: <i>Geometric Concepts, Space Figures, Geometric Measurement</i></p>



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	and other units as appropriate	who can stand inside of it. Continue making rectangles so the measure of the length gets closer to the measure of the width with each new rectangle. The area inside should increase. Now have students form a circle with the rope and stand inside of it. They will see that they have made a shape with a lot of interior space.		
3rd 8	Patterns, Functions and Algebra: Graph linear equations and inequalities	Review Graphing equalities Graphing inequalities Graphing solutions of equalities To turn graphing into a kinesthetic experience, make a set of axes on the school grounds by laying down two perpendicular axes with some tape. Mark off units from -6 to +6 on both axes. Place students on the points (-6, 0), (-5, 0), (0, 0), (6, 0). Whisper to them an algebraic expression such as, "Double your number and add 1." Then have them walk the appropriate number of steps forward or backward, depending on whether the number they have is positive or negative. Together, the students should form the graph of the equation $y = 2x + 1$ by doing that. Have the rest of the class try to guess the equation that was graphed. After doing this several times, switch roles and	Graphing technique Vocabulary: <i>Graph of a solution, number line, inequality, probability</i>	A+ Grade 7 Math: <i>Coordinate Graphing Graph plots</i>



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		have other members of the class graph the equation and the other students guess what it is.		
3rd 9	Patterns, Functions and Algebra: Describe, extend and determine the rules for patterns and relationships occurring in numeric patterns, computation, geometry, graphs and other applications	Graphing solutions of inequalities The coordinate system –locating points The coordinate system-plotting points Determining the points of a line Look in a newspaper each day for a week to find the days predicted high and low temperatures. On two separate number lines, graph the day's temperature, one for the predicted high and one for the predicted low temperature. Graph those temperatures on the same number lines in a second color. Compare predicted temperatures with the actual temperatures.	Graphing technique Vocabulary: <i>Graph of a solution, number line, inequality, probability</i>	A+ Grade 7 Math: <i>Coordinate Graphing</i> <i>Graph plots</i>



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4th 1	Patterns, Functions and Algebra: Graph linear equations and inequalities	Graphing lines The slope of a line Formula for the slope of a line Slope-intercept form of a line Review Place a bean seed on a damp paper towel in a clear plastic cup. Then insert a few toothpicks into a potato and rest it on the top of another cup so half the potato is in water. Place the cup side by side. Draw a coordinate plane, and plot both plants' growth as a function of time (x-axis shows growth, while y-axis shows time in days. Describe the slope of the graph. What does the slope tell you?	Written work Vocabulary: <i>Plane, coordinate plane, coordinate axes, horizontal, vertical, x-axis, y-axis, origin, ordered pair, graph an ordered pair, graph of an equation, broken-line-graph, slope, rise, run</i>	A+ Grade 7 Math: <i>Coordinate Graphing</i> <i>Graph plots</i>
4th 2	Data Analysis and Probability: Collect organize, display and interpret data for a specific purpose or need	Graphing using a sales formula More practice with slope- intercept form Review	<i>Vocabulary:</i> <i>Plane, coordinate plane, coordinate axes, horizontal, vertical, x-axis, y-axis, origin, ordered pair, graph an ordered pair, graph of an equation, broken-line-graph, slope, rise, run</i>	A+ Grade 7 Math: <i>Coordinate Graphing</i> <i>Graph plots</i>



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4th 3	Geometry and Spatial Sense: Identify and label angle parts and the regions defined within the plane where the angle resides	Angles and angle measure Identifying and classifying angles Complementary and supplementary angles Angle measures in a triangle As much as possible, make geometry a hands-on and “minds-on” learning experience. Give students opportunities to draw various angles, triangles, and quadrilaterals and to use protractors and rulers to measure angles and lengths. Also, provide opportunities for students to discuss what they discovered from their work. This will allow you to clarify misconceptions and explain concepts they do not understand.	Vocabulary: <i>Complementary angle, Supplementary angle, Intersect, line of symmetry, line segment, obtuse angle, acute angle, parallel lines, perpendicular lines, right angle</i>	A+ Grade 7 Math: <i>triangles, Geometric Concepts, Space Figures, Geometric Measurement</i>
4th 4	Geometry and Spatial Sense: Identify and draw three-dimensional objects from different views (top, side, front and bottom perspective) Apply properties of equality and proportionality to	Naming triangles Congruent triangles Similar triangles Parallelograms Quadrilaterals and diagonals Polygons and diagonals Create various polygons with labels	Vocabulary: <i>Triangle, polygon, diagonals, Isosceles, Obtuse, Scalene Equilateral triangle, Right triangle, parallelogram, quadrilaterals, pentagon, hexagon, octagon, decagon, face, vertex, area, perimeter</i>	A+ Grade 7 Math: <i>Triangles, Geometric Concepts, Space Figures, Geometric Measurement</i>



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	solve problems involving congruent or similar figures			
4th 5	Data Analysis and Probability: Collect , organize, display and interpret data for a specific purpose or need	Drawing, cutting, and pasting tessellations (When finished with Plato unit)Use fancy papers or computer-generated images Point out applications of the ideas whenever possible. For example, when using the overhead projector, explain that the image placed on the glass is similar to the one seen on the screen. Discuss tile or fabric patterns that show examples of translations or reflections. Point out examples of windows, doors, and fixtures that are congruent to one another. Discuss how the angles in a room are often right angles. Have students find examples of the various figures they are studying in their homes or in school.	Create a tessellation across a page Vocabulary: rotation, reflection, tessellations, transformation, translation	A+ Grade 7 Math: <i>Motion geometry</i>
4th 6	Data Analysis and Probability: Collect , organize, display and interpret data for a specific purpose or need	Bar graphs, intervals Circle graphs Frequency tables Create a statistics bulletin board in your classroom. Have students cut out graphs from magazines and newspapers, write a summary about each graph, and post the	Accurate interpretation Accurate representation of data Vocabulary: Graph, circle graph, bar graph, horizontal axis, vertical axis, pictograph, calendar, tally, frequency table, rotation, reflection,	A+ Grade 7 Math: <i>Statistics</i>



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		graphs and summaries on the bulletin board. You can have one student present his or her graph each day at the start of math class.	<i>tessellations, transformation, translation</i>	
4th 7	Data Analysis and Probability: Understand the different information provided by measures of center and measures of spread	Range Stem-Leaf-Plot Box-and-whiskers plots The probability fraction The fundamental principle of counting Using and making graphs Using a representative sample to predict the total population produces an estimate, not an exact answer.	Quiz: Which graph should be used and why? Vocabulary: <i>Graph, circle graph, bar graph, horizontal axis, vertical axis, pictograph, calendar, tally, frequency table, stem-leaf-plot, quartiles, box-whiskers plots</i>	A+ Grade 7 Math: <i>statistics</i>
4th 8	Data Analysis and Probability: Understand the different information provided by measures of center and measures of spread	End of year review	“Final” Post-test	A+ Grade 7 Math: Complete all remaining lessons
4th 9		Return finals Celebrate success Graph progress Make presentation to upcoming seventh graders		A+ Grade 7 Math: Complete all remaining lessons



Virtual Schoolhouse

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